

## REMARKS

Claims 1, 3, 5, 6 and 10 have been amended. Claims 1-11 remain in the application. Support for the amendments to the claims is identified herein. No new matter has been added. This application has been carefully considered in connection with the Examiner's Action. Reconsideration, withdrawal of the final action, and allowance of the application, as amended, is respectfully requested.

### Rejection under 35 U.S.C. §102

Claim 1 recites a device for providing an artificially generated angiographic image (A) of a body structure (1) matching a given heartbeat phase ( $H_d$ ) and a respiratory phase ( $R_d$ ), comprising a database (2) with existing angiograms (3, 3a) of the body structure (1) from different heartbeat phases (H) and respiratory phases (R), and a data processing apparatus linked thereto, which is arranged to carry out the following steps:

- a) Calculation of a transform function (f), which describes a geometrical change (x) in the body structure (1) occurring in the existing angiograms dependent upon the respiratory phase (R), which calculation of the transform function takes place based on the angiograms (3, 3a) available in the database (2); and
- b) Generation of the artificial angiographic image (A) from at least one angiogram (3a) of the database (2), whose heartbeat phase ( $H_1$ ) matches the given heartbeat phase ( $H_d$ ) and whose respiratory phase (R) does not match the given respiratory phase ( $R_d$ ), with the use of the calculated transform function (f), wherein the calculated transform function operates to transform the at least one angiogram into a corresponding at least one artificial angiographic image (A) that goes with both the given heartbeat phase ( $H_d$ ) and the respiratory phase ( $R_d$ ), wherein a representation of a current image of the body structure (1) at the given heartbeat phase ( $H_d$ ) and respiratory phase ( $R_d$ ) is superimposed with the corresponding artificially generated angiographic image (A).

Support for the amendment to claim 1 (as well as for amendments to claims 3, 5, 6 and 10) can be found in the specification on at least page 2, lines 19-20, 26-27; page

3, lines 18-22; and page 7, lines 4-7 of the application as originally filed. In addition, support for the amendment to claim 10 can be found in claim 10 as was originally filed. Support for the amendment to claim 20 can be found in the specification on page 8, lines 14-19.

Claims 1 and 3-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mollus '060 (US Patent Application No. 2003/0123606). With respect to claim 1, Applicants respectfully traverse this rejection for at least the following reasons.

The PTO provides in MPEP § 2131 that

*"[t]o anticipate a claim, the reference must teach every element of the claim...."*

Therefore, with respect to claim 1 as currently amended, to sustain this rejection the **Mollus '060** reference must contain all of the above claimed elements of the respective claims. However, contrary to the examiner's position that all elements are disclosed in the **Mollus '060** reference, the latter reference does not disclose "... a) Calculation of a *transform function* (f), which *describes a geometrical change* (x) ... *dependent upon* the respiratory phase (R) ... and b) Generation of the *artificial angiographic image* (A) from at least one angiogram (3a) of the database (2), whose heartbeat phase ( $H_1$ ) matches ... and whose respiratory phase (R) does not match ... wherein the *calculated transform function* operates to *transform* the at least one angiogram *into a corresponding* at least one *artificial angiographic image* (A) that goes with both the given heartbeat phase ( $H_d$ ) and the respiratory phase ( $R_d$ ) ..." as is claimed in claim 1. Therefore, the rejection is not supported by the **Mollus '060** reference and should be withdrawn.

Accordingly, claim 1 is *prima facie* allowable and an early formal notice thereof is requested. Dependent claims 3-9 depend from and further limit allowable independent

claim 1 and therefore are allowable as well. Withdrawal of the rejection is respectfully requested.

Claim 10 has been amended in a manner similar to that of amended claim 1. For at least the same reasons as presented with respect to claim 1 above, claim 10 is believed prima facie allowable. Accordingly, withdrawal of the rejection and an early formal notice of allowability is respectfully requested.

### **Rejection under 35 U.S.C. §103**

Claims 2 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mollus '060 (US Patent Application No. 2003/0123606) and further in view of Langer '716 (US Patent No. 6,496,716 B1). With respect to claims 2 and 11, the same depend from and further limit, in a patentable sense, allowable independent claim 1 and thus are allowable as well. Withdrawal of the rejection is respectfully requested.

### **Conclusion**

Except as indicated herein, the claims were not amended in order to address issues of patentability and Applicants respectfully reserve all rights they may have under the Doctrine of Equivalents. Applicants furthermore reserve their right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or a continuation application.

It is clear from all of the foregoing that independent claims 1 and 10 are in condition for allowance. Dependent claims 2-9 and 11 depend from allowable independent claim 1, and are thus also allowable.

Appl. No. 10/575,572  
Response to Final Action of October 5, 2007

PATENT  
Docket No.: DE030355US1  
Customer No. 000024737

Amendments herein are fully supported by the original specification and drawings as discussed herein; therefore, no new matter is introduced. Issuance of an early formal notice of allowance of claims 1-11 is requested.

Respectfully submitted,

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Dated: Nov. 11, 2007

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a-32658.174